



US 20190064472A1

(19) **United States**(12) **Patent Application Publication**
Ishibashi(10) **Pub. No.: US 2019/0064472 A1**(43) **Pub. Date: Feb. 28, 2019**(54) **OPTICAL SYSTEM AND OPTICAL
APPARATUS INCLUDING SAME****G02B 7/10** (2006.01)**H04N 5/374** (2006.01)(71) Applicant: **CANON KABUSHIKI KAISHA,**
Tokyo (JP)(52) **U.S. Cl.**CPC **G02B 7/021** (2013.01); **H04N 5/374**
(2013.01); **G02B 7/10** (2013.01); **G02B**
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(57)

ABSTRACT(21) Appl. No.: **16/114,321**(22) Filed: **Aug. 28, 2018**(30) **Foreign Application Priority Data**

Aug. 31, 2017 (JP) 2017-167283

Publication Classification(51) **Int. Cl.****G02B 7/02** (2006.01)**G02B 27/00** (2006.01)

An optical system of the present invention includes a plurality of lenses inclusive of an aspheric lens having an aspheric surface. A light absorption portion having thickness distribution in a direction perpendicular to an optical axis of the optical system is provided on the optical axis. Here, a refractive index of the aspheric lens, a refractive index of the light absorption portion, an aspheric sag amount of the aspheric lens, an aspheric sag amount of the light absorption portion, a height of a position in the aspheric lens through which a marginal ray of an axial ray passes, and a height of a position in the light absorption portion through which the marginal ray of the axial ray passes are each appropriately set.

